

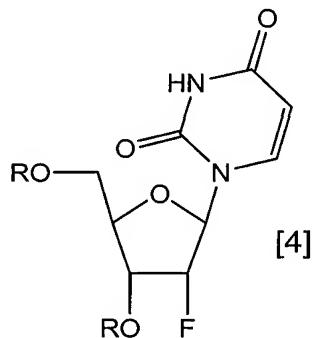
**Amendments to the Claims:**

The following listing of claims replaces all prior versions, and listings, of claims in the application:

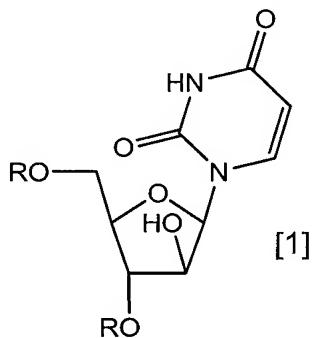
**Listing of Claims:**

1-11. (canceled)

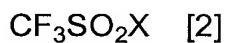
12. (new) A process for producing a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4],



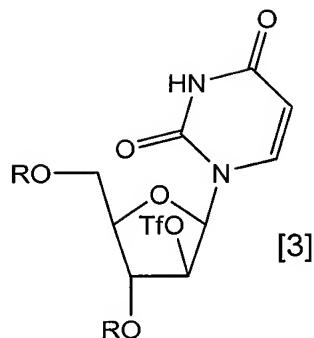
wherein R represents a hydroxyl-protecting group, by reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [1],



wherein R has the meaning given above, with a trifluoromethanesulfonylating agent represented by formula [2],

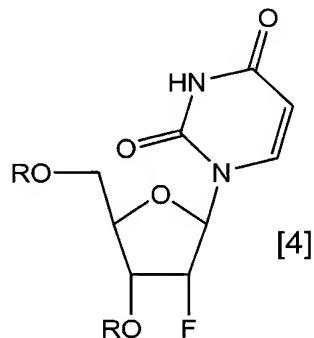


wherein X represents an F atom, Cl atom or  $\text{CF}_3\text{SO}_3$  group, in the presence of an organic base, to convert it to a 2'-triflate compound represented by formula [3],

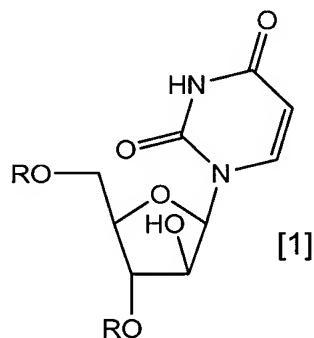


wherein R has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group, followed by reacting with a fluorinating agent comprising a salt or complex containing an organic base and hydrofluoric acid.

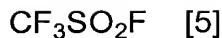
13. (new) A process for producing a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4],



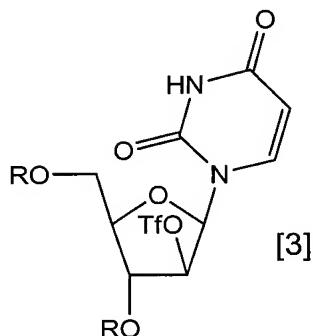
wherein R represents a hydroxyl-protecting group , by reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [1],



wherein R has the meaning given above, with a trifluoromethanesulfonylating agent represented by formula [5],

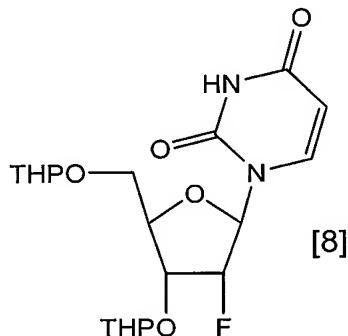


in the presence of triethylamine, to convert it to a 2'-triflate compound represented by formula [3],

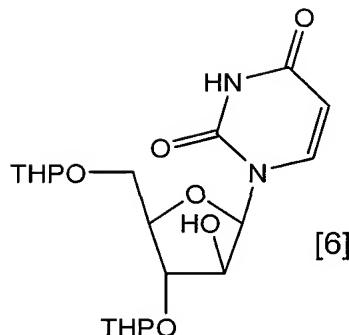


wherein R has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group, followed by reacting with a fluorinating agent comprising a salt or complex containing triethylamine and hydrofluoric acid.

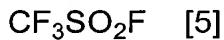
14. (new) A process for producing a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [8],



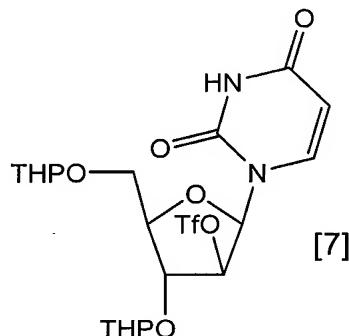
wherein THP represents a tetrahydropyranyl group, by reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [6],



wherein THP has the meaning given above, with a trifluoromethanesulfonylating agent represented by formula [5],

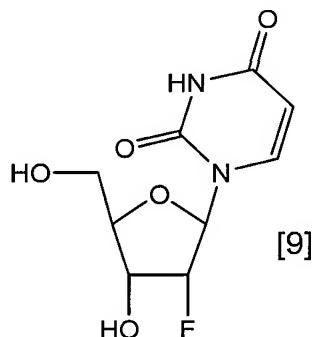


in the presence of triethylamine, to convert it to a 2'-triflate compound represented by formula [7],



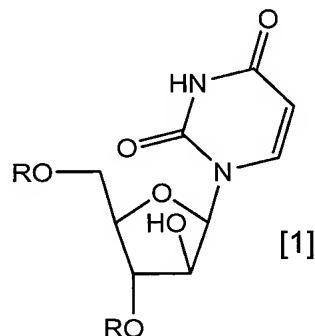
wherein THP has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group, followed by reacting with a fluorinating agent comprising a salt or complex containing triethylamine and hydrofluoric acid.

15. (new) A process for producing 2'-deoxy-2'-fluorouridine represented by formula [9],

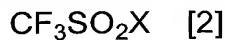


the process comprising the steps of:

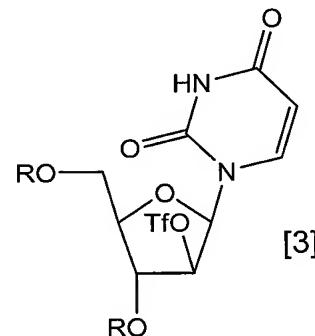
(a) reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [1],



wherein R represents a hydroxyl-protecting group, with a trifluoromethanesulfonylating agent represented by formula [2],

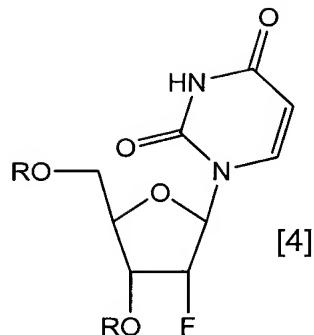


wherein X represents an F atom, Cl atom or  $\text{CF}_3\text{SO}_3$  group, in the presence of an organic base, to convert it to a 2'-triflate compound represented by formula [3],



wherein R has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group,

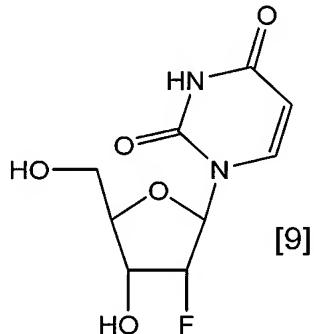
(b) reacting the 2'-triflate compound represented by formula [3], with a fluorinating agent comprising a salt or complex containing an organic base and hydrofluoric acid, to convert it to a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4],



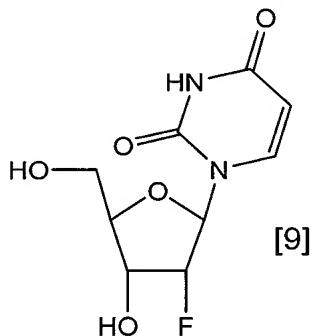
wherein R has the meaning given above, and

(c) reacting the hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4], with a deprotecting agent.

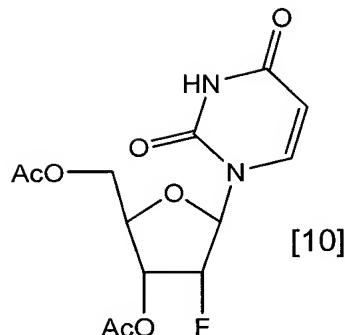
16. (new) A process for purifying 2'-deoxy-2'-fluorouridine represented by formula [9],



comprising reacting 2'-deoxy-2'-fluorouridine represented by formula [9],

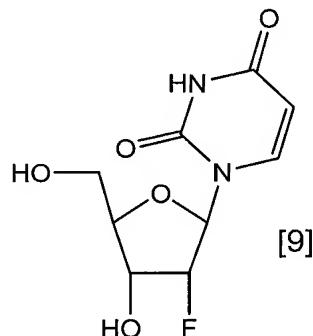


with an acetylating agent in the presence of an organic base, to convert it to 3',5'-diacetylated 2'-deoxy-2'-fluorouridine represented by formula [10],



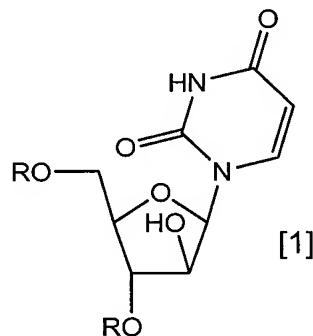
wherein Ac represents an acetyl group, followed by a recrystallization purification of the 3',5'-diacetylated 2'-deoxy-2'-fluorouridine and then reacting with a deacetylating agent.

17. (new) A process for purifying 2'-deoxy-2'-fluorouridine represented by formula [9],

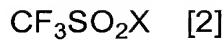


the process comprising the steps of:

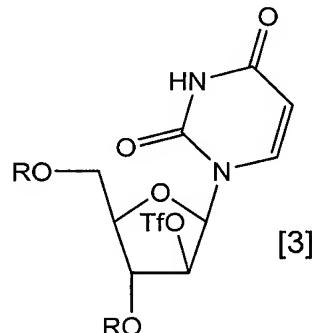
(a) reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [1],



wherein R represents a hydroxyl-protecting group, with a trifluoromethanesulfonylating agent represented by formula [2],

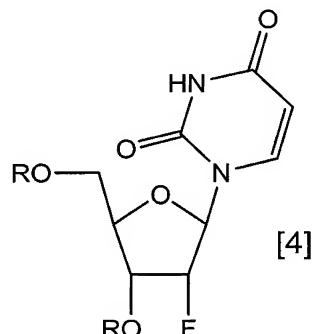


wherein X represents an F atom, Cl atom or  $\text{CF}_3\text{SO}_3$  group, in the presence of an organic base, to convert it to a 2'-triflate compound represented by formula [3],



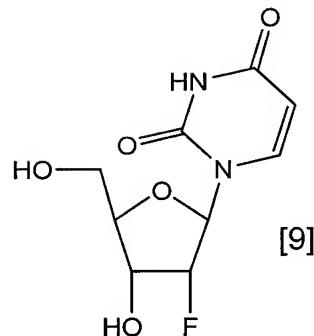
wherein R has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group,

(b) reacting the 2'-triflate compound represented by formula [3], with a fluorinating agent comprising a salt or complex containing an organic base and hydrofluoric acid, to convert it to a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4],



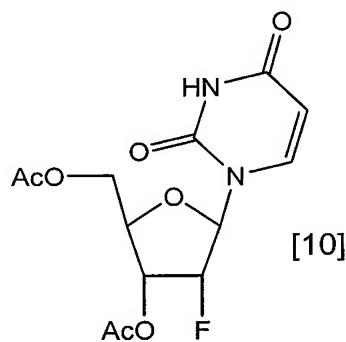
wherein R has the meaning given above,

(c) reacting the hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4], with a deprotecting agent, to convert it to 2'-deoxy-2'-fluorouridine represented by formula [9],



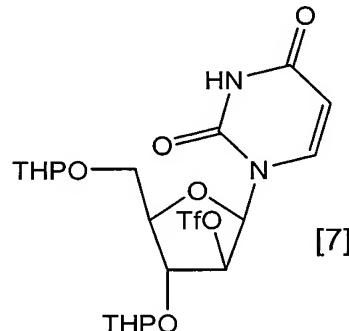
and

(d) reacting the 2'-deoxy-2'-fluorouridine represented by formula [9], with an acetylating agent in the presence of an organic base, to convert it to 3',5'-diacetylated 2'-deoxy-2'-fluorouridine represented by formula [10],



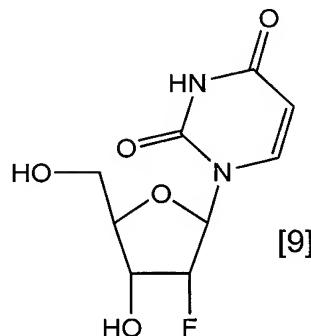
wherein Ac represents an acetyl group, followed by a recrystallization purification of the 3',5'-diacetylated 2'-deoxy-2'-fluorouridine and then reacting with a deacetylating agent.

18. (new) A 2'-triflate compound represented by formula [7],



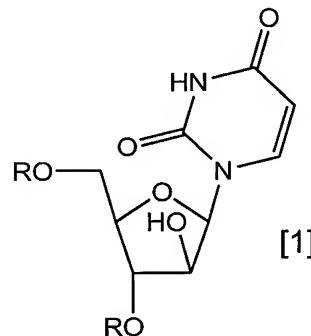
wherein THP represents a tetrahydropyranyl group, and Tf represents a CF<sub>3</sub>SO<sub>2</sub> group.

19. (new) A process for producing 2'-deoxy-2'-fluorouridine represented by formula [9],

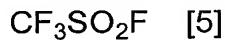


the process comprising the steps of:

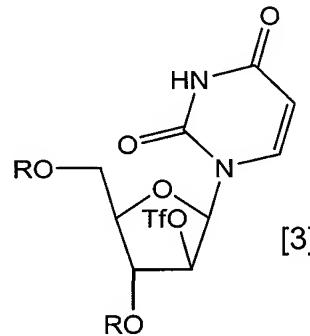
(a) reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [1],



wherein R represents a hydroxyl-protecting group, with a trifluoromethanesulfonylating agent represented by formula [5],

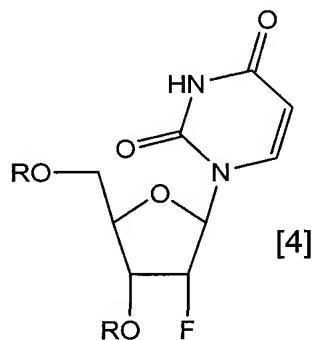


in the presence of triethylamine, to convert it to a 2'-triflate compound represented by formula [3],



wherein R has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group,

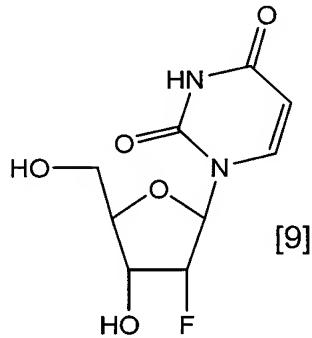
(b) reacting the 2'-triflate compound represented by formula [3], with a fluorinating agent comprising a salt or complex comprising containing triethylamine and hydrofluoric acid, to convert it to a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4],



wherein R has the meaning given above, and

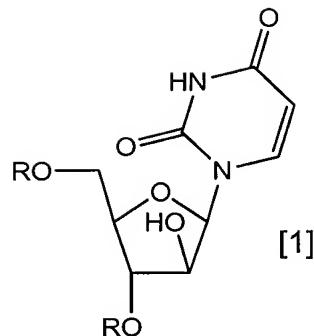
(c) reacting the hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4], with a deprotecting agent.

20. (new) A process for purifying 2'-deoxy-2'-fluorouridine represented by formula [9],

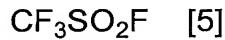


the process comprising the steps of:

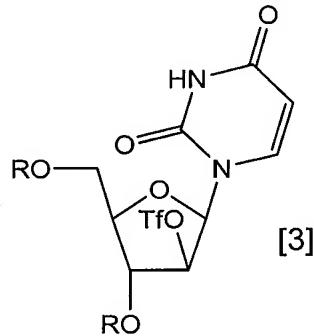
(a) reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [1],



wherein R represents a hydroxyl-protecting group, with a trifluoromethanesulfonylating agent represented by formula [5],

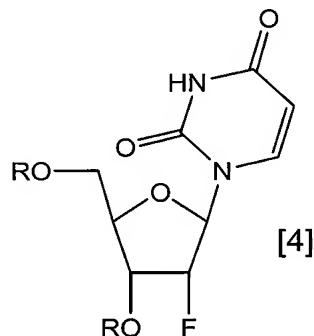


in the presence of triethylamine, to convert it to a 2'-triflate compound represented by formula [3],



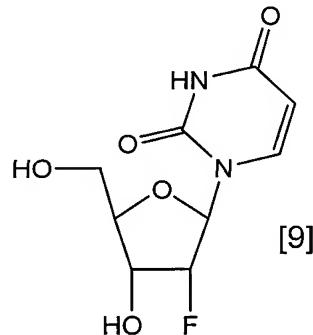
wherein R has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group,

(b) reacting the 2'-triflate compound represented by formula [3], with a fluorinating agent comprising a salt or complex comprising containing triethylamine and hydrofluoric acid, to convert it to a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [4],



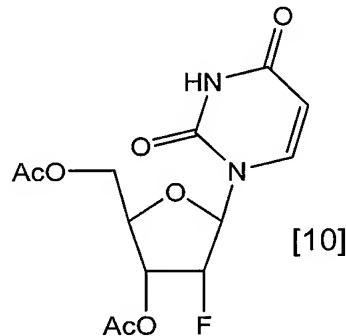
wherein R has the meaning given above, and

(c) reacting the hydroxyl-protected 2'-deoxy-2'fluorouridine compound represented by formula [4], with a deprotecting agent, to convert it to 2'-deoxy-2'-fluorouridine represented by formula [9],



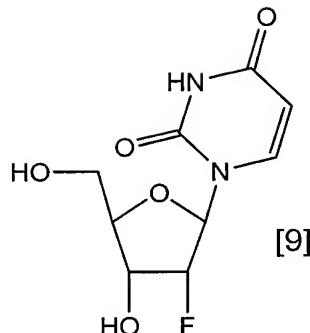
and

(d) reacting the 2'-deoxy-2'-fluorouridine represented by formula [9], with an acetylating agent in the presence of an organic base, to convert it to 3',5'-diacetylated 2'-deoxy-2'-fluorouridine represented by formula [10],



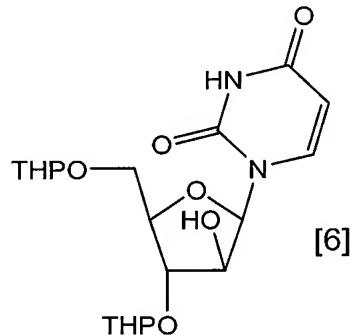
wherein Ac represents an acetyl group, followed by a recrystallization purification of the 3',5'-diacetylated 2'-deoxy-2'-fluorouridine and then reacting with a deacetylating agent.

21. (new) A process for producing 2'-deoxy-2'-fluorouridine represented by formula [9],

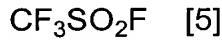


the process comprising the steps of:

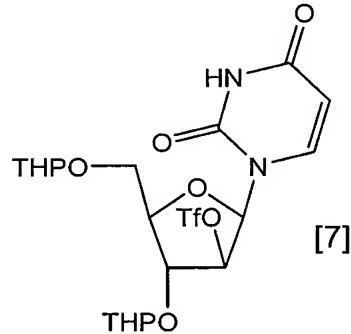
(a) reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [6],



wherein THP represents a tetrahydropyranyl group, with a trifluoromethanesulfonylating agent represented by formula [5],



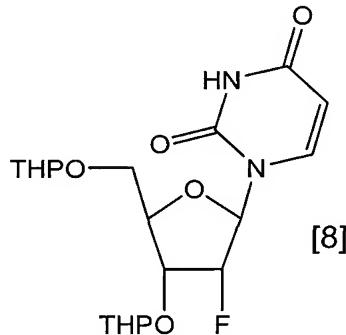
in the presence of triethylamine, to convert it to a 2'-triflate compound represented by formula [7],



wherein THP has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group,

(b) reacting the 2'-triflate compound represented by formula [7], with a fluorinating agent comprising a salt or complex comprising containing

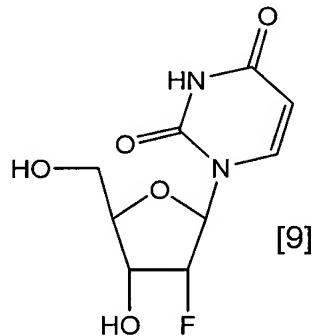
triethylamine and hydrofluoric acid, to convert it to a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [8],



wherein THP has the meaning given above, and

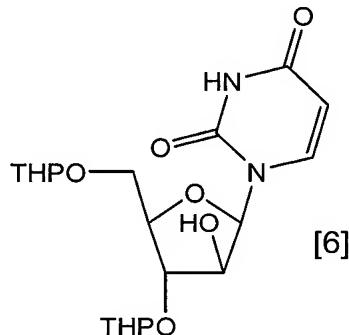
(c) reacting the hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [8], with a deprotecting agent.

22. (new) A process for purifying 2'-deoxy-2'-fluorouridine represented by formula [9],

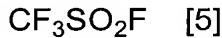


the process comprising the steps of:

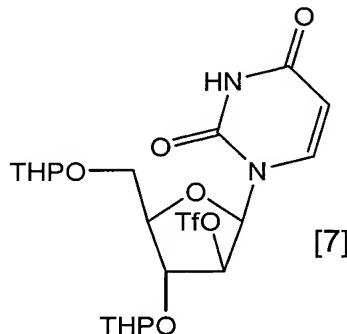
(a) reacting 1- $\beta$ -D-arabinofuranosyluracil in 3',5'-hydroxyl-protected form, represented by formula [6],



wherein THP represents a tetrahydropyranyl group, with a trifluoromethanesulfonylating agent represented by formula [5],

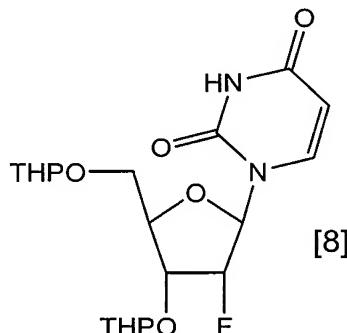


in the presence of triethylamine, to convert it to a 2'-triflate compound represented by formula [7],



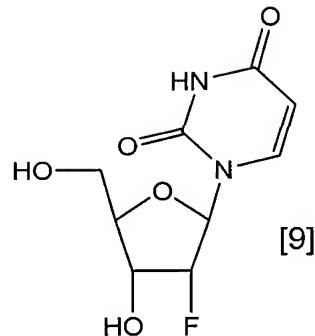
wherein THP has the meaning given above, and Tf represents a  $\text{CF}_3\text{SO}_2$  group,

(b) reacting the 2'-triflate compound represented by formula [7], with a fluorinating agent comprising a salt or complex comprising containing triethylamine and hydrofluoric acid, to convert it to a hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [8],



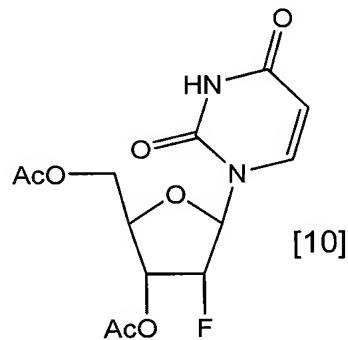
wherein THP has the meaning given above, and

(c) reacting the hydroxyl-protected 2'-deoxy-2'-fluorouridine compound represented by formula [8], with a deprotecting agent, to convert it to 2'-deoxy-2'-fluorouridine represented by formula [9],



and

(d) reacting the 2'-deoxy-2'-fluorouridine represented by formula [9], with an acetylating agent in the presence of an organic base, to convert it to 3',5'-diacetylated 2'-deoxy-2'-fluorouridine represented by formula [10],



wherein Ac represents an acetyl group, followed by a recrystallization purification of the 3',5'-diacetylated 2'-deoxy-2'-fluorouridine and then reacting with a deacetylating agent.